

PAT-NO: JP407226485A

DOCUMENT-IDENTIFIER: JP 07226485 A

TITLE: MANUFACTURING METHOD OF CAPACITOR
FOR INTEGRATED CIRCUIT

PUBN-DATE: August 22, 1995

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APPL-NO: JP06016029

APPL-DATE: February 10, 1994

INT-CL (IPC): H01L027/04, H01L021/822

ABSTRACT:

PURPOSE: To enable a large capacitor in thin film to be manufactured at low temperature for realizing the on chip capacitor.

CONSTITUTION: A lower electrode 13 comprising Ti is formed on a protective film 12 comprising SiON covering a substrate 11 and then a high dielectric film 14 comprising TiO<SB>2</SB> required of high temperature baking step is formed at a low temperature having conductivity, next, the surface of the high dielectric film 14 is heated at a baking temperature by irradiating with the beams from a heavy hydrogen lamp having the wavelength in a region in shorter

intrusion length than the film thickness of the high dielectric film 14 and low transmittivity to the film 14 i.e., 125 (nm) and 160(nm) so as to form extremely thin high resistant film 14A. Next, the high resistant film 14A is used as a substantial dielectric film of a capacitor thereby enabling compact and large capacity capacitor to be manufactured at low temperature.

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